



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,163	05/31/2005	Daniel Andrew Mavro-Michaelis	7347.0713.001	1431

40443 7590 12/19/2005

BRIAN L. RIBANDO
REISING, ETHINGTON, BARNES, KISSELLE, P.C.
P. O. BOX 4390
TROY, MI 48099

EXAMINER

NGUYEN, GEORGE BINH MINH

ART UNIT PAPER NUMBER

3723

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/537,163

Applicant(s)

MAVRO-MICHAELIS, DANIEL
ANDREW

Examiner

George Nguyen

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 13-19 is/are rejected.
- 7) ☒ Claim(s) 5-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Receipt is acknowledged of Applicant's preliminary amendment filed on May 31, 2005.

Claims 1-19 are presented for examination.

This application has been filed with formal drawings which are acceptable to the examiner.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.

Art Unit: 3723

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

2. The disclosure is objected to because of the following informalities: in paragraph [0045], Fig. 6 should have been Fig. 7.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 15 recites the limitation "the same part" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 3, 4, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lambert et al.'5,044,125 in view of Sigg'4,637,169.

With reference to figures 1-3 and 14, col. 16, lines 13-19, Lambert discloses a method for controlling a grinding process. The method includes a force transducer 22 mounted adjacent the wheel head 14 to measure a magnitude of a normal force factor occurring between the wheel 17 and the workpiece 12. In Figure 14, col. 12, line 48 to col. 62, line 40, Lambert discloses watt transducer 29 for determining wheelhead 14 power consumption and for cross-referencing tangential forces experienced by the grinding wheel. In col. 14, lines 49-51, Lambert discloses using the normal force, tangential force, wheelhead power consumption data to dress, true, or loading a new grinding wheel. In col. 16, lines 14-19, Lambert further teaches that if the maximum normal force exceeds a safety limit, the feed is stopped, as there may be some problem with the machine. The problem must be addressed by the operator.

U.S. Patent

Sep. 3, 1991

Sheet 1 of 16

5,044,125

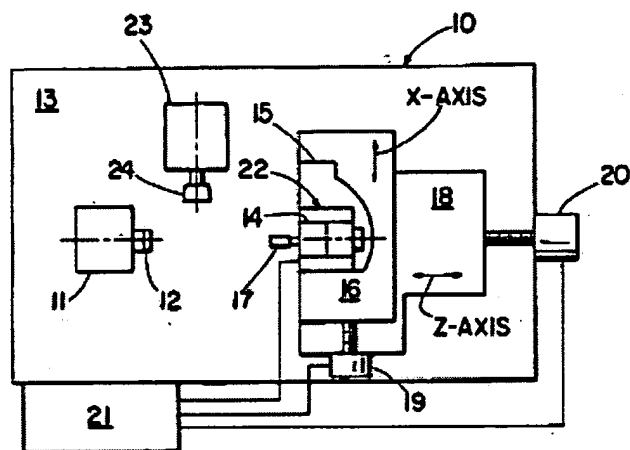


Fig. 1

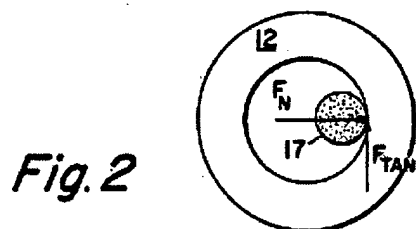


Fig. 2

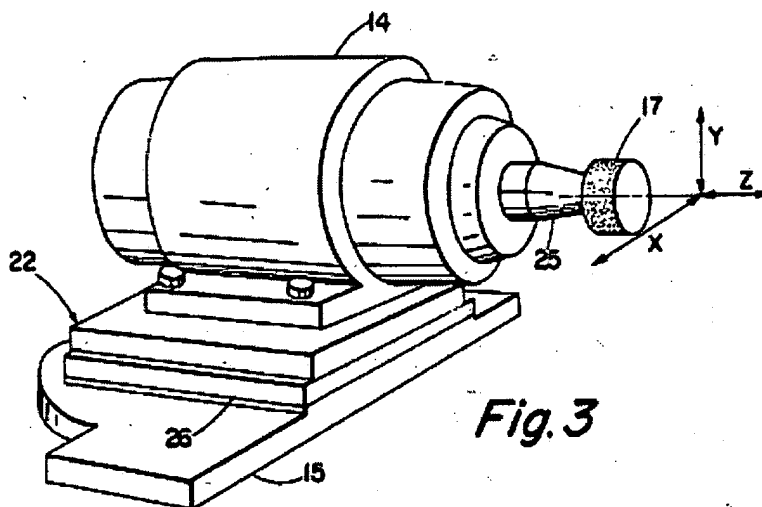
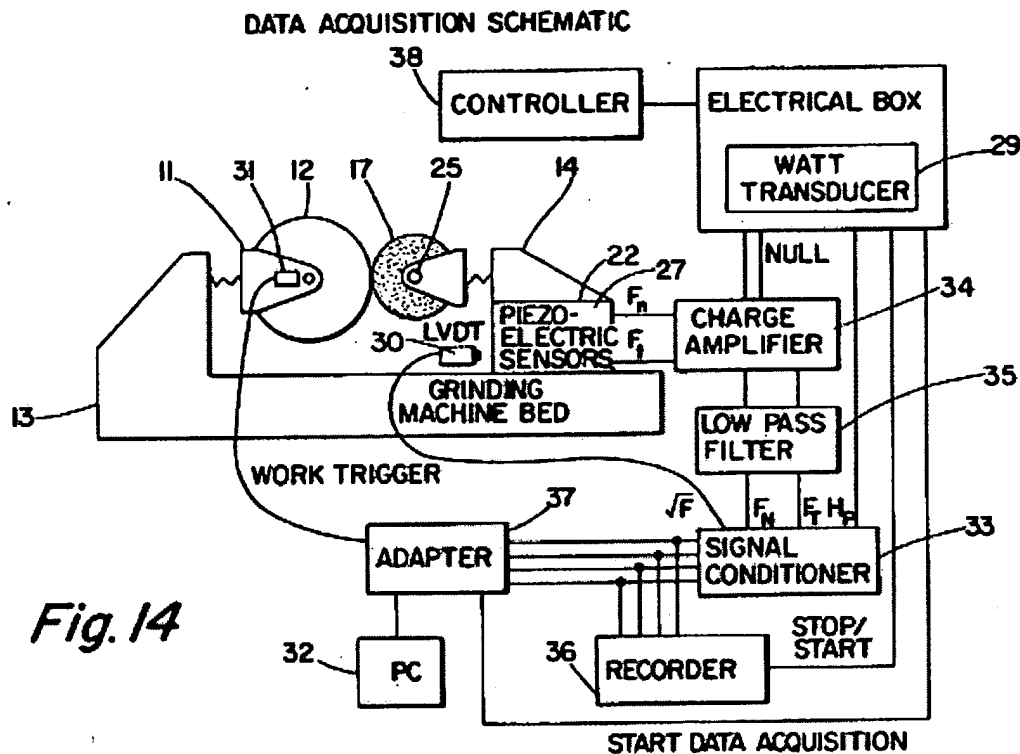


Fig. 3

Art Unit: 3723

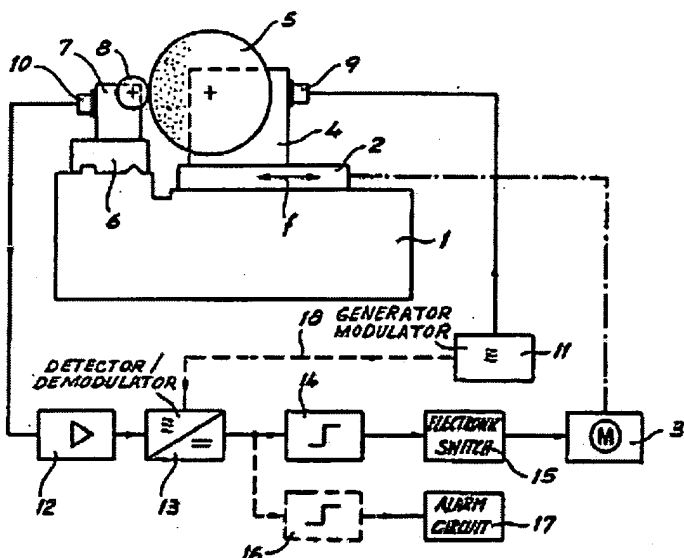


- 5 As mentioned above, before the grinding wheel has reached the finished size position, it is important to insure that the workpiece has been rounded up. Therefore, it is preferred that before the finished size position is reached, the maximum normal force (F_{n-max}) for each
- 10 revolution of the workpiece compared with a normal force limit value which has been preset into the machine (e.g., a normal force value 20 lbs. higher than the constant force or target grind force, F_{tar} , established for that grind cycle). If the maximum normal force exceeds
- 15 this safety limit, the feed is stopped, as there may be some problem with the machine. In actual use, the maximum normal force will never exceed this normal force limit unless there is a problem which must be addressed by the operator.

However, Lambert does not disclose a step of generating a warning signal when the value of the normal force signal exceeding a predetermined value.

Art Unit: 3723

With reference to Figure 1, col. 4, lines 5-20, Sigg discloses an apparatus for controlling the advance of wheelhead 4 toward workpiece 8. The apparatus includes a detector circuit 13 to provide a control signal to the switch 16 when the amplitude exceeds a predetermined value or more particularly drops below the value. In other words, the warning signal might want the operator to stop the machine for checking and/or effect an automatic stopping thereof.



tem. Effectively, the detector circuit 13 may be equipped with an amplitude discriminator providing a control signal to the switch 16 when the amplitude exceeds a predetermined value or more particularly drops below this value. Thus it is possible to control the warning circuit 17. Such diminution of amplitude indicates poor functioning of one of the elements of the chain constituted by the electronic generator 11, the transmission elements constituted by the machine tool, the amplifier 12 and detection circuit 13. In other words, the warning signal might warn the operator to stop the machine for checking and/or effect an automatic stopping thereof.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of controlling the advancement of

Art Unit: 3723

wheelhead in Lambert with a warning signal circuit as taught by Sigg, since Sigg states in col. 4, lines 5-20, that such modification would provide a warning signal to the operator to stop the machine for checking and/or effect an automatic stopping thereof. Regarding to claims 2-4, Lambert discloses measuring wheelhead power consumption using watt transducer 29. Inherently, watt transducer measures current and torque to obtain the power consumption.

Allowable Subject Matter

8. Claims 5-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 15-19 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

10. The following is a statement of reasons for the indication of allowable subject matter: the specific limitations of "in which the instantaneous power demand ... of similar workpieces" in the combination as claimed in claim 15 are not anticipated nor made obvious by the prior art of record in the examiner.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Coverdale et al.'097 discloses grinding method and apparatus utilizing a step of measuring instantaneous grinding wheel power. Compton'360 discloses CNC turning machine utilizing linear motor for tool advancement. Nedreski'677 discloses constant horsepower control for grinding wheel drives.

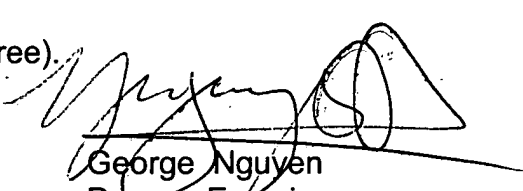
Art Unit: 3723

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Nguyen whose telephone number is 571-272-4491. The examiner can normally be reached on Monday-Friday/630AM-300PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GEORGE NGUYEN
PRIMARY EXAMINER



George Nguyen
Primary Examiner
Art Unit 3723

GN – December 15, 2005